

CUS350M/F

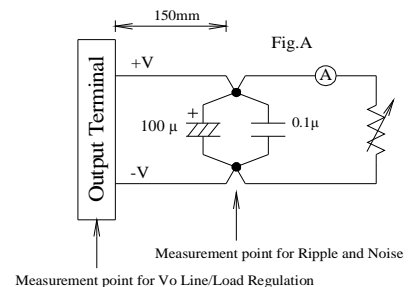
SPECIFICATIONS

ITEMS		MODEL	CUS350M-12/F	CUS350M-18/F	CUS350M-24/F	CUS350M-36/F	CUS350M-48/F	REV	
1	Nominal Output Voltage	V	12	18	24	36	48		
2	Maximum Output Current @ Convection cooling	A	29	19.4	14.7	9.7	7.3		
	Maximum Output Current @ Forced air cooling	A	34.5	23	17.5	11.5	8.7		
3	Maximum Output Power @ Convection cooling	W	348.0	349.2	352.8	349.2	350.4		
	Maximum Output Power @ Forced air cooling	W	414	414	420	414	417.6		
4	Standby Mode Power	-	5V, 0.5A						
	Fan Supply	-	-12V, 0.3A						
5	Efficiency @ Convection cooling (Typ.)	115/230 VAC (*1)	%	91 / 93	91 / 94	91 / 94	91 / 93	91 / 94	
	Efficiency @ Forced air cooling (Typ.)	115/230 VAC (*1)	%	91 / 93	91 / 94	91 / 94	91 / 93	91 / 94	
6	Input Voltage Range	(*2)	85 - 265 VAC (47-63Hz) or 120 - 370 VDC						
7	Input Current(Typ. Forced air cooling)	115/230 VAC (*1)	A	4.5 / 2.3					
8	Inrush Current (Typ.)	115/230VAC(*1)(*3)	-	20A / 40A at Cold Start					
9	PFHC	-	Built to meet EN61000-3-2						
10	Power Factor (Typ.)	115/230 VAC (*1)	-	0.99 / 0.95					
11	Output Voltage Range	-	11.4 - 12.6	17.1 - 18.9	22.8 - 25.2	34.2 - 37.8	45.6 - 50.4		
12	Maximum Ripple & Noise @ Convection cooling	115/230 VAC (*1)(*4)(*5)	mV	120	120	240	360	480	
	Maximum Ripple & Noise @ Forced air cooling	115/230 VAC (*1)(*4)(*5)	mV	150	200	240	360	480	
13	Maximum Line Regulation	(*4)(*6)	mV	60	90	120	180	240	
14	Maximum Load Regulation	(*4)(*7)	mV	120	180	240	360	480	
15	No Load Power Consumption (Typ.)	(*12)	-	0.5W @ 230VAC					
16	Temperature Coefficient	(*4)	-	Less than 0.02% / °C					
17	Over Current Protection	(*8)	A	>38	>26	>20	>13	>10	
18	Over Voltage Protection	(*9)	V	13.8 - 16.2	20.7 - 24.3	27.6 - 32.4	41.4 - 48.6	55.2 - 64.8	
19	Hold-up time (Typ.with 350W load)	-	20ms with maximum output power						
20	Leakage Current	(*10)	-	0.3mA max @265VAC,60Hz					
21	Remote ON/OFF control	-	Possible						
		-	Uncommitted isolated optocoupler diode, power diode inhibits the supply						
22	Remote Sense	-	Compensates for 0.5V maximum voltage drop (See Instruction Manual)						
23	Power Good	-	Possible, Uncommitted opto isolated transistor, on @AC and DC are good Provides ≥5ms warning (off) of loss of output from AC failure						
24	Parallel Operation	-	-						
25	Series Operation	-	Possible						
26	Operating Temperature	(*11)	-	-20°C - +70°C					
27	Operating Humidity	-	10 - 95%RH (No condensing)						
28	Storage Temperature	-	-40°C - +85°C						
29	Storage Humidity	-	10 - 95%RH (No condensing)						
30	Cooling	(*13)	-	Convection or Forced air cooling					
31	Withstand Voltage	-	Input-FG : 2kVAC (20mA) 1xMOPP, Input-Output : 4kVAC (20mA) 2xMOPPs Output-FG : 1.5kVAC (20mA) 1xMOPP.						
32	Isolation Resistance	-	More than 100MΩ at 25°C,70%RH, Output - FG : 500VDC						
33	Vibration	-	At no operating, 10-55Hz (Sweep for 1min.) Maximum 19.6m/s ² X,Y,Z 1 hour each						
34	Shock	-	Less than 196m/s ² and MIL-STD-810F						
35	Safety	-	Approved by: IEC60601-1 2nd Edition and 3rd Edition, EN60601-1 3rd Edition, ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No.60601-1 3rd Edition (cTUVus) IEC/EN60950-1 2nd Edition, UL/CSA60950-1 2nd Edition(cTUVus) Design to meet: GB4943.1						
36	EMI	115/230VAC(*1)	-	Designed to meet EN55011-B, EN55022-B, FCC - CE:Class B,RE:Class A @ Convection cooling					
37	Immunity	-	Designed to meet IEC61000-4-2 (Level 2,3), IEC61000-4-3 (Level 3), IEC61000-4-4 (Level 3), IEC61000-4-5 (Level 3,4), IEC61000-4-6 (Level 3), IEC61000-4-8 (Level 4), IEC61000-4-11						
38	Weight (Typ.)	g	850						
39	Size (L x W x H)	mm	190 x 87 x 40 (Refer to Outline Drawing)						

*Read instruction manual carefully, before using the power supply unit.

=NOTES=

- *1. At Ta=25°C, Nominal output voltage and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 ~ 240VAC (50-60Hz).
Output derating required when Vin is less than 115VAC, refer to output derating curve for details
- *3. Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- *4. Please refer to Fig. A for measurement of Vo, line and load regulation and ripple voltage.
- *5. Ripple & noise are measured at 20MHz by using a 150mm twisted pair of load wires terminated with a 0.1uF and 100uF capacitor.
- *6. 85-265VAC, constant load
- *7. No load - full load, constant input voltage.
- *8. Hiccup with automatic recovery
Avoid to operate at over load or short circuit condition for more than 30 seconds.
- *9. OVP circuit shut down the output, manual reset (Repower on) to get output voltage.
- *10. Measured by the each measuring method of UL, CSA, and EN (at 60Hz), Ta=25°C.
- *11. Refer to Output Derating Curve for details of output derating versus input voltage, ambient temperature and mounting method .
- Load (%) is percent of maximum output power or maximum output current.
Do not exceed its derating of Maximum Load.
- maximum load start up at -40°C is possible. However, it may not fulfill all the specifications.
- *12. The power consumption refers to input power during remote off and standby mode power is at no load condition.
- *13. Forced air cooling with air velocity more than 1.5m/s (measured at component side, air must flow through component side)

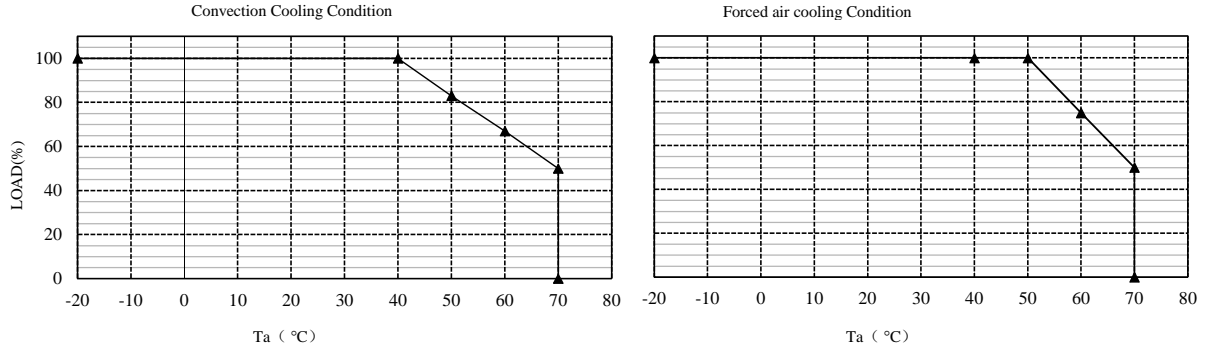


ISSUED	-	-
ENG.	CHK.	APPD.

OUTPUT DERATING

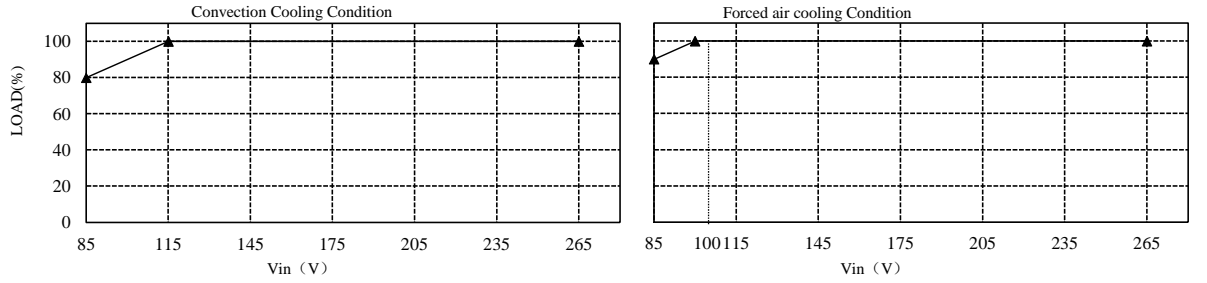
OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

Ta (°C)	LOAD (%)	
	Convection cooling	Forced air cooling
-20 - +40	100	100
50	83	100
60	67	75
70	50	50

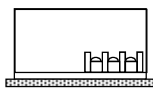


OUTPUT DERATING VERSUS INPUT VOLTAGE

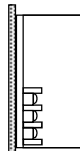
INPUT VOLTAGE (VAC)	LOAD (%)	
	Convection cooling	Forced air cooling
85	80	90
115-265	100	100



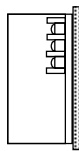
MOUNTING A
(STANDARD MOUNTING)



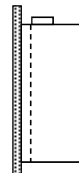
MOUNTING B



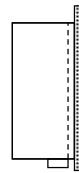
MOUNTING C



MOUNTING D



MOUNTING E



ISSUED		
ENG.	CHK.	APPD.